

REMARKS

The amendments and remarks presented herein are believed to be fully responsive to the Office Action of June 22, 2007. Accordingly, reconsideration is requested.

Disposition of Claims.

Claims 1-30 are pending in the application. Claims 1 and 15 have been amended herein.

Drawings.

The drawings have been objected to because they fail to show a parallelogram type coupler mechanism (reference character 34) as described in the specification and required by claim 8. Applicant traverses this objection and refers to FIG. 11, which shows parallelogram type coupler mechanism 34 in two different positions. Accordingly, withdrawal of the objection to the drawings is respectfully requested.

Claim Rejections – 35 U.S.C. § 112.

Claim 1 is rejected under 35 U.S.C. § 112 as being indefinite. The Office Action states that it is unclear if the recitation of a "conveying device cooperates with land-side and sea-side hoisting and lowering devices" requires the land-side and sea-side hoisting and lowering devices or must merely have the ability to cooperate with them. Accordingly, claim 1 has been amended to positively recite the land-side and sea-side hoisting and lowering devices. Withdrawal of the rejection of claim 1 under 35 U.S.C. § 112 is respectfully requested.

Claim Rejections – 35 U.S.C. § 102.

Claims 1, 2, 26, 27 and 30 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Kawase, JP 11-278790 A. Applicant traverses this rejection. However, to expedite prosecution, claim 1 has been amended as follows:

1. A transfer plant for loading and unloading containers from container ships at seaports, comprising:

a vertical support which is propped up at the land side and a horizontal extension arm braced by said vertical support, wherein said horizontal extension arm protrudes across the ship that is to be unloaded on the sea side; and

a horizontal conveying device adapted to travel in a lengthwise direction along said extension arm, wherein said conveying device cooperates with;

land-side and sea-side hoisting and lowering devices adapted to pick up and put down the containers and adapted to cooperate with said conveying device, that are wherein said hoisting and lowering devices are arranged at the land and sea side and also on the horizontal extension arm[[],];

wherein said conveying device comprises at least two horizontal conveying devices arranged generally parallel to each other on said horizontal extension arm wherein said at least two horizontal conveying devices are adapted to travel independently of each other and alongside each other between the land-side and sea-side hoisting and lowering devices in a lengthwise direction along said horizontal extension arm, wherein containers on each of said at least two horizontal conveying devices are conveyed generally parallel to one another.

Applicant respectfully urges that Kawase does not anticipate or render obvious amended claim 1. To establish anticipation, the cited reference must disclose all of the elements as claimed. *Verdegaal Bros. Inc. v. Union Oil Co. of California*, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). Kawase does not disclose, for example, at least two horizontal conveying devices arranged generally parallel to each other on a horizontal extension arm, wherein the conveying devices are adapted to travel independently of each other and alongside each other between the land-side and sea-side hoisting and lowering devices in a lengthwise direction along the horizontal extension arm. Further, Kawase does not disclose horizontal conveying devices adapted to convey containers generally parallel to one another, yet independently of one another. Thus, the conveying devices and their respective containers move in a common horizontal plane but are not dependent on one another. For at least the reasons discussed above, withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) is respectfully requested.

With respect to claim 2, Kawase does not disclose intermediate storage devices arranged on a horizontal extension arm in the region of either the land-side and the sea-side hoisting and lowering devices, such that the containers can be put down or picked up by the land-side or sea-side hoisting and lowering devices, as well as the horizontal conveying devices. In Kawase, containers are transferred from a vessel to a transverser, and from the transverser to ground equipment. There is no disclosure of intermediate storage devices, much less intermediate storage devices arranged on a horizontal extension arm.

Regarding claim 26, Kawase does not disclose, for example, a spreader to receive a container which has been swiveled and positioned underneath the spreader. There is no disclosure of any device adapted to swivel containers in Kawase.

With respect to claim 27, Kawase discloses movable trolleys for delivering between transversers and ground equipment or a vessel, but does not disclose a lift guided on a vertical support, wherein the lift comprises a trolley guided on a horizontal hoisting beam, with a load suspension means for the container, wherein the hoisting beam is suspended from hoisting cables and linked by a cross rail to guide rollers that can roll against said vertical support.

With respect to claim 30, Kawase does not disclose a transfer plant having a gantry type substructure supported on rail traversing mechanisms, wherein an extension arm protrudes across the substructure on the land side and the vertical support is propped up centrally on the substructure at the land side.

Accordingly, Applicant submits that the present invention as claimed in claims 2, 26, 27 and 30 is not anticipated nor rendered obvious by Kawase. Further, claims 2, 26, 27 and 30 are each dependent on base claim 1, which has been patentably distinguished as discussed above. Accordingly, withdrawal of the rejection of claims 2, 26, 27 and 30 under 35 U.S.C. § 102(b) is respectfully requested.

Claim Rejections – 35 U.S.C. § 103.

Claims 3-25, 28 and 29, including independent claim 15, have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of one or more of Martin et al., Tax et al., Young, Weis and Spies. As discussed above, Kawase does not disclose, for example, a transfer plant having at least two generally parallel horizontal conveying devices on a horizontal extension arm, wherein the conveying devices are adapted to travel independently of each other and alongside each other between the land-side and sea-side hoisting and lowering devices in a lengthwise direction along the horizontal extension arm. Nor do any of the secondary references make up for this deficiency, as will be discussed in more detail below. Accordingly, for at least the reason that claims 3-14 and 19-25, 28 and 29 are dependent on base claim 1, which has been patentably distinguished above, withdrawal of the rejection of claims 3-14 and 19-25, 28 and 29 under 35 U.S.C. §103(a) is respectfully requested.

With respect to independent claim 15 and claims 16-18 which depend therefrom, claims 15-18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Spies, U.S. Pat. No. 3,342,849 A1 and Tax et al. Applicant traverses this rejection. However, to expedite prosecution, claim 15 has been amended as follows:

15. A method of loading and unloading of containers from container ships with a vertical support which is propped up at the land side and on which a horizontal extension arm is braced, wherein said extension arm protrudes across the ship that is to be unloaded on the sea side and along which at least two horizontal conveying devices can travel, wherein said conveying device cooperates with hoisting and lowering devices that pick up and put down the containers, said hoisting and lowering devices being arranged at the land and sea side and also on said horizontal extension arm, wherein said at least two horizontal conveying devices are arranged generally parallel to each other on the horizontal extension arm and can travel independently of each other between the land-side and sea-side hoisting and lowering devices in a lengthwise direction along the horizontal extension arm, and with intermediate storage devices arranged on the horizontal extension arm in the region of at least one chosen from the land-side and the sea-side hoisting and lowering devices, where containers can be put

down or picked up by the land-side or sea-side hoisting and lowering devices, as well as the horizontal conveying devices, the method comprising:

- a) for the unloading of containers from a container ship tied up at the dock, providing a spreader and picking up a container by said spreader of the sea-side hoisting and lowering device, which has been positioned on the horizontal extension arm above the container, and raised to a maximum hoisting height,
- b) providing a horizontally swiveling carrying arm having a horizontally swiveling carrying frame at the intermediate storage device arranged on the sea-side hoisting and lowering device, said carrying arm and carrying frame swiveling from a position of rest underneath a railway of the two horizontal conveying devices into a position underneath the container,
- c) placing the container down on the carrying frame and swiveling the container along with said carrying frame under one of the two railways of the horizontal conveying devices,
- d) positioning at least one of the horizontal conveying device[s] above the container on the carrying frame receiving the container and transporting the container to the end of the land-side extension arm, while the sea-side hoisting and lowering device picks up a new container,
- e) handing off the container at the land-side end of the extension arm to a carrying frame of a second intermediate storage device, having a downwardly extending support column and swiveling said carrying frame by a horizontal swivel arm into the region of the railways of the horizontal conveying devices underneath the container,
- f) after detaching the container from the horizontal conveying device, swiveling the carrying frame with the container under the hoisting mechanism of the hoisting and lowering device hinged to the land-side extension arm and picking up the container by a spreader,
- g) swiveling the carrying frame back and lowering the container by the hoisting and lowering device and handing off the container to a horizontal conveying system on the ground,

- h) concurrently with steps a through g, picking up a second container by the sea-side hoisting and lowering device and transporting the second container by [[the]] a second of the at least two horizontal conveying devices across its other railway to the end of the extension arm at the land side, wherein the second horizontal conveying device is positioned generally parallel to a first of the horizontal conveying devices, wherein the second container is conveyed generally parallel to a container on the first conveying device and where the second container is handled in the same fashion, and
- i) performing the steps a through h in reverse sequence for loading containers on a ship.

Neither Kawase, Spies nor Tax et al. disclose, for example, concurrently picking up a second container by the sea-side hoisting and lowering device and transporting the second container by a second horizontal conveying device that is positioned generally parallel to a first horizontal conveying device, such that the second container is conveyed generally parallel to a container on the first conveying device. The two parallel, horizontal conveying devices claimed in claim 15 result in the containers on each conveying device being conveyed in a direction parallel to one another, i.e. in a common horizontal plane, but independently from one another. Accordingly, Applicant submits that the proposed combination does not render the present invention as claimed in amended claim 15 obvious. Accordingly, withdrawal of the rejection of claim 15 under 35 U.S.C. §103(a) is respectfully requested.

With respect to claims 16-18, neither Kawase, Spies nor Tax et al. disclose a container oriented transversely to the lengthwise axis of the extension arm when being swiveled into a predetermined position parallel to the extension arm by either the carrying arm or the carrying frame swiveling through +/-90°. Nor does the proposed combination disclose a container remaining in a parallel orientation to the extension arm when swiveled into a region of a hoisting and lowering device, as a result of opposite swivel movements of the carrying arm and carrying frame. Applicant respectfully submits that the modification of Kawase to arrive at the invention as claimed in claims 16-18 is based upon impermissible hindsight reasoning based on Applicant's own disclosure.

Further, claims 16-18 are each dependent on base claim 15, which has been patentably distinguished as discussed above. Accordingly, for this additional reason, withdrawal of the rejection of claims 16-18 under 35 U.S.C. §103(a) is respectfully requested.

Claims 3-5 and 19-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Martin et al., U.S. Pat. No. 4,546,852. Applicant traverses this rejection.

“Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” See *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006). With respect to claims 3 and 19, neither Martin nor Kawase discloses a rigid sea-side base arm that accommodates a sea-side hoisting and lowering device in a position of rest of the transfer plant, in which the sea-side swivel arm is swiveled upward.

With respect to claims 4 and 20, neither Martin nor Kawase disclose a transfer plant including railways for horizontal conveying devices arranged on both sides next to a railway of the sea-side hoisting and lowering device and next to the land-side hoisting and lowering device, essentially along the entire horizontal extension arm. Further, regarding claims 5 and 21, neither Martin nor Kawase disclose a railway for a hoisting and lowering device ending in the region of a vertical support, with the railways for horizontal conveying devices running laterally past the vertical support. Further, the claimed limitations of claims 3-5 and 19-21 are not disclosed in the drawings of either Kawase or Martin.

Additionally, the proposed combination of Martin and Kawase would change the principle operation of Kawase. Martin et al. discloses an adjustable work platform for a gantry crane, in which the hoist and trolley motions of the crane are interlocked with the position of the work platforms. Modification of Kawase to include the features of Martin would restrict the movements or motions of the structure of Kawase, which is not adapted to be interlocked with work platforms.

Further, it is respectfully submitted that this rejection is based on impermissible hindsight reasoning based on Applicant's disclosure of the limitations claimed in claims 3-5 and 19-21 in combination with a transfer plant having at least two horizontal conveying

devices arranged generally parallel to each other on a horizontal extension arm, wherein the conveying devices are adapted to travel independently of each other and alongside each other between land-side and sea-side hoisting and lowering devices. Accordingly, for this additional reason, withdrawal of the rejection of claims 3-5 and 19-21 under 35 U.S.C. §103(a) is respectfully requested.

Claims 6-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Martin et al. and Tax et al., U.S. Pat. No. 5,931,625. Applicant traverses this rejection.

Kawase does not disclose an intermediate storage device, as discussed above with respect to claim 2. Further, the turntable of Tax et al. is not adapted to swivel both into a region underneath a sea-side or land-side hoisting and lowering device and into a region of two horizontal conveying devices into corresponding pick-up and hand-off positions for the picking up or handing off of a container. Nor is the turntable of Tax adapted to connect or detach a container to or from a sea-side or land-side hoisting and lowering device.

Further, it is respectfully submitted that the rejection of these claims is based on impermissible hindsight reasoning based on Applicant's disclosure of the limitations claimed in claims 6-11 in combination with a transfer plant having at least two horizontal conveying devices arranged generally parallel to each other on a horizontal extension arm, wherein the conveying devices are adapted to travel independently of each other and alongside each other between land-side and sea-side hoisting and lowering devices. For this additional reason, withdrawal of the rejection of claims 6-11 under 35 U.S.C. §103(a) is respectfully requested.

Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Martin et al and Tax et al. and Young, U.S. Pat. No. 3,543,952. Applicant traverses this rejection.

As previously stated, “[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” See *In re Kahn*, 441 F.3d 977. It is respectfully submitted that the rejection of claim 12 is based on impermissible hindsight reasoning based on Applicant's disclosure of a mobile counterweight coupled to hoisting cables of a land-side hoisting and lowering device, in combination with a transfer

plant having at least two horizontal conveying devices arranged generally parallel to each other on a horizontal extension arm, wherein the conveying devices are adapted to travel independently of each other and alongside each other between land-side and sea-side hoisting and lowering devices. Accordingly, for this additional reason, withdrawal of the rejection of claim 12 under 35 U.S.C. §103(a) is respectfully requested.

Claims 13 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Martin et al., Tax et al., Young, and Weis, WO 9835905 A2. Applicant traverses this rejection.

With respect to claim 13, Weis does not disclose a loading station arranged beneath a land-side hoisting and lowering device having two pick-up and hand-off positions that can travel alternately underneath the hoisting and lowering device, cooperating with a horizontal conveying system. Although the Office Action refers to Weis having a transport designated by reference numeral 5, Weis does not disclose the transport 5 traveling alternately underneath a hoisting and lowering device or cooperating with a horizontal conveying system. Thus, the combination of Weis with Kawase, Martin, Tax et al. and Young does not render obvious the present invention as claimed in claim 13.

With respect to claim 14, as previously discussed, Kawase does not disclose a gantry type substructure supported on rail traversing mechanisms, wherein an extension arm protrudes across the substructure on the land side, and a vertical support is propped up centrally on the substructure at the land side. Nor does Weis make up for this deficiency. In view of the above, withdrawal of the rejection of claims 13 and 14 under 35 U.S.C. §103(a) is respectfully requested.

Claim 28 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Young. Applicant traverses this rejection. As discussed above with respect to claim 12, it is respectfully submitted that the combination of Kawase and Young to arrive at the invention as claimed in claim 28 is based on impermissible hindsight reasoning based on Applicant's disclosure. For this additional reason, withdrawal of the rejection of claim 28 under 35 U.S.C. §103(a) is respectfully requested.

Claim 29 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kawase in view of Weis. Applicant traverses this rejection. As discussed above with respect to claim 14,

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neither Kawase nor Weis discloses a gantry type substructure supported on rail traversing mechanisms, wherein an extension arm protrudes across the substructure on the land side, and a vertical support is propped up centrally on the substructure at the land side.

Accordingly, for this additional reason, withdrawal of the rejection of claim 29 under 35 U.S.C. §103(a) is respectfully requested.

Applicant notes that the Office Action does not include a rejection for claims 22-25. Claims 22-25 are also dependent on claim 1, which has been patentably distinguished as discussed above. For this additional reason, Applicant respectfully requests withdrawal of the rejection of claims 22-25.

The amendments presented herein are fully supported by the application as filed. Accordingly, no new matter has been added. Issuance of a Notice of Allowance is sincerely requested.

If Examiner Adams has any questions, the Examiner is requested to call the undersigned attorney.

Respectfully submitted,

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